

REMARKS

This is a full and complete response to the Office action dated April 17, 2008. Reconsideration is respectfully requested.

REGARDING THE CLAIMS:

Claims 8-21 are pending. No amendments are made with this reply.

IN RESPONSE TO THE OFFICE ACTION:

REJECTION UNDER 35 U.S.C. § 103:

In the Office Action, three groupings of claims, namely claims 8-12, 13-18, and 19-21 stand rejected under 35 USC §103(a) as being unpatentable over **De Keyzer** WO 02/057386 (herein after “**De Keyzer**”). Applicants respectfully traverse this rejection.

It is the Examiner’s position that the block copolymers of **De Keyzer** each preferably have a weight average molecular weight ranging from 100,000 to 500,000. The Examiner states that not disclosed is the molecular weight of 124,000-145,000, however the experimental modification of the cited art in order to ascertain optimum operating conditions fails to render Applicant’s claims patentable in the absence of unexpected results.

It is Applicants’ position that the experimental results shown in the present application would not be predictable by one of skill in the art, and furthermore, demonstrate the criticality of the claimed molecular weight range and therefore no prima facie case of obviousness may be established. *See* MPEP 2144.05 III

Applicants note that **De Keyzer** is directed towards an adhesive composition comprising (i) one or more styrenic block copolymers, (ii) a tackifier resin, and (iii) one or more plasticizers, wherein the or one of the styrenic block copolymers is of the general formulae A-C-A(1), or (A-C)_n-X (2), wherein each A independently is a polymer block of an aromatic vinyl compound, and C is a mixed polymer block (B/I) of butadiene (B) and isoprene (I) in a weight ratio B:I in the range of 30:70 to 70:30, and said polymer block C has a glass o transition temperature (T_g) of at most -50°C (determined according to

ASTM E-1356-98), n is an integer equal to or greater than 2, and X is the residue of a coupling agent, and wherein the tackifier resin has an aromaticity (in relative percentage of aromatic protons as determined by H-NMR) in the range of from 3 to 18%. *See Abstract of De Keyzer.* Furthermore, **De Keyzer** discloses a broad weight average molecular weight range of 100,000-500,000 of the block copolymer. *See De Keyzer pg 5, lines 21-26.*

The present claims recite, inter alia, a molecular weight of 124,000 to 145,000. This range produces unexpectedly superior results in view of the cited reference. According to the Manual of Patent Examining Procedure (MPEP), in the case of overlapping ranges, obviousness can be overcome by showing the criticality of the claimed range, and such criticality can be achieved by demonstrating that the claimed range achieves unexpected results relative to the prior art. *See MPEP 2144.05 III.*

Applicants note that De Keyzer was specifically addressed in paragraph [0032] of the present Application. It was stated therein that the block copolymer F in **De Keyzer**, page 19, table 2 is actually the same as comparative block copolymer B in tables 2-4 in the present application and “which did not provide the presently claimed improved low hot-melt viscosity in adhesive compositions...” For convenience, Applicants provide table 2 as follows.

TABLE 2

	Polymer							
	A	B ^a	C	D	E	F	G	H
Mw Polystyrene*10 ³	14.2	14.8	14.4	13.7	14.2	13.9	14.2	14.6
Total Mw*10 ³	143	153	137	138	142	124	128	130
Coupling efficiency %	81	81	80	79	73	73	81	79
Polystyrene content wt %	31	30	30	30	31	34	34	33
Bd/lp ratio wt/wt	1	1	1	1.45	0.98	0.69	0.72	0.99
vinyl in Bd wt %	8	8	8	8	8	8	8	8
vinyl in lp wt %	5	5	5	5	5	5	5	5

^acomparative block copolymer, not according to the invention.

As can be seen above, Polymer B shows a molecular weight of 153,000 which is outside the claimed range of 124,000-145,000 by only a small amount. Although outside the claimed range, it is, however, within the range disclosed by **De Keyzer** of 100,000 to 500,000 as well as the preferred range of **De Keyzer** of 150,000 to 250,000. *See De Keyzer, page 5, lines 21-26.* Although being outside of the presently claimed range by a small amount, there still results in a large increase in viscosity, as demonstrated in Table 4:

TABLE 4

<u>(Viscosities in Pa · s)</u>									
Temp.	D- 1165	A	B ^o	C	D	E	F	G	H
130° C.	79.4	25.7	110	25	33.4	31	16.3	29.4	23.4
140° C.	20.7	10.2	26.6	11.1	14.7	12.8	6.9	11.4	10.7
150° C.	7.6	5.5	12	6.8	8.3	7.2	3.8	6	6.1
160° C.	3.6	3.6	8.2	4.4	5.3	4.6	2.4	3.6	4

^ocomparative block copolymer outside the present invention.

Thus, Polymer B is within the preferred range of **De Keyzer**, and further is used as an example according to **De Keyzer**'s invention, as example F. The polymers according to the present claims, shown in Table 2 - Polymers A and C-H have a molecular weight also within the range of **De Keyzer**. However, compositions A, and B-H show significantly improved properties over that of composition B as shown in Table 4. Therefore, a person skilled in the art could in no way expect or predict these improved properties.

In *KSR*, the Supreme Court repeatedly referred to predictable modifications and results, and where it is large-scale, wholesale concepts that were combined, predictability (i.e. obviousness) of the combination was manifest. *See KSR Int'l v. Teleflex Inc.*, 127

S.Ct. 1727, 82 USPQ2d 1385, 1397 (2007). As the experimental results in the Application discussed above would not be predictable to one of ordinary skill in the art, and furthermore such results demonstrate the criticality of the claimed range, Applicants submit that no prima facie case of obviousness may be established. Accordingly, Applicants request the above mentioned rejections be withdrawn.

In view of the comments above, it is respectfully requested that the rejections be withdrawn and a Notice of Allowance issue with respect to the currently pending claims.

The undersigned representative requests any extension of time that may be deemed necessary to further the prosecution of this application.

The undersigned representative authorizes the Commissioner to charge any additional fees under 37 C.F.R. 1.16 or 1.17 that may be required, or credit any overpayment, to Deposit Account No. 14-1437, referencing Attorney Docket No.: 8132.201.NPUS00.

In order to facilitate the resolution of any issues or questions presented by this paper, the Examiner may directly contact the undersigned by phone to further the discussion.

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Respectfully submitted,

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